

## **IN THE CLAIMS**

For the Examiner's convenience, a listing of the pending and amended claims is provided below.

1. (Currently Amended) A system for executing a financial transaction to purchase or sell a plurality of financial instruments, the system comprising:

a memory adapted to store a plurality of orders or quotations to purchase or sell the financial instruments, the orders or quotations including at least one complex order and a plurality of inverse complex orders, the complex and inverse complex orders each having a net price and each including a plurality of legs, each leg being an order to purchase or sell at least one of the financial instruments;

a processor coupled with the memory; and

a matching algorithm coupled with the processor, wherein the processor uses the matching algorithm to match each leg of the at least one complex order with other orders or quotations stored in the memory, and wherein the matching algorithm includes:

a synthetic pricing routine that calculates a synthetic high price and a synthetic low price for the at least one complex order;

an inverting routine that inverts the net price of each of the inverse complex orders; and

a sorting routine that sorts the inverse complex orders, determines an inverse complex order with the lowest inverted net price that is less than or equal to the synthetic high price and greater than or equal to the synthetic low price, and matches the at least

- one complex order with the determined inverse complex order [if such an inverse complex order is found].
2. (Previously Presented) The system of claim 1, wherein matching each leg of the at least one complex order is contingent on matching all of the legs of the complex order.
  3. (Cancelled)
  4. (Previously Presented) The system of claim 1, wherein the plurality of financial instruments includes at least one options contract.
  5. (Previously Presented) The system of claim 4, wherein the plurality of financial instruments includes at least one order to purchase or sell stock underlying the at least one options contract.
  6. (Previously Presented) The system of claim 1, wherein the plurality of financial instruments includes at least one futures contract.
  7. (Previously Presented) The system of claim 6, wherein the plurality of financial instruments includes an amount of a commodity underlying the at least one futures contract.
  8. (Previously Presented) The system of claim 1, wherein the processor is adapted to periodically monitor the memory to determine if the at least one complex order can be matched.
  9. (Previously Presented) The system of claim 1, further comprising a data interface coupled with the processor, wherein the data interface receives best price information and the matching algorithm calculates the synthetic high price and synthetic low price using the best price information.

10. (Previously Presented) The system of claim 1, wherein the processor is adapted to monitor the memory to determine if the at least one complex order can be matched on the occurrence of a market event.
11. (Previously Presented) The system of claim 10, wherein the market event includes a change in best price information.
12. (Previously Presented) The system of claim 10, wherein the market event includes the storage of a new order or quotation in the memory.
13. (Previously Presented) The system of claim 1, further comprising an arrival delay timer, the arrival delay timer delaying execution of the matching algorithm for a period time from when the at least one complex order is stored by the memory.
14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Previously Presented) The system of claim 1, wherein the at least one complex order stored earliest in time is ranked with a higher priority for execution than complex orders stored later in time
18. (Previously Presented) The system according to claim 1, further comprising an execution processor coupled with the processor and adapted to execute the at least one complex order with the determined inverse complex order.
19. (Previously Presented) The system of claim 9, wherein the best price information reflects prices for an options contract on at least one away market.

20. (Previously Presented) The system of claim 1, wherein a number of option contracts for at least one leg of the at least one complex order is a ratio of a number of option contracts for at least one other leg of the at least one complex order.
21. (Previously Presented) The system of claim 20, wherein the matching algorithm is adapted to match a portion of each leg of the at least one complex order based on the ratio.
22. (Previously Presented) The system according to claim 1, further comprising an obvious price error algorithm coupled with the processor, the obvious price error algorithm preventing matching algorithm from matching the complex order against the determined inverse complex order if a price improvement by the determined inverse complex order is greater than an error prevention value.
23. (Previously Presented) The system according to claim 9, wherein the net prices of the plurality of inverse complex orders are determined from the best price information for each leg of the inverse complex orders.
24. (Previously Presented) A system for matching complex orders to purchase or sell a plurality of financial instruments, the system comprising:
  - a memory adapted to store a plurality of orders or quotations including at least one complex order, a plurality of inverse complex orders, and a plurality of regular orders, wherein the complex and inverse complex orders each include a net price;
  - a processor coupled with the memory to identify matches among complex orders inverse complex orders, and regular orders; and

a matching algorithm coupled with the processor, wherein the processor uses the matching algorithm to match each leg of the at least one complex order with a plurality of regular orders in a single transaction at a single net price, and wherein the matching algorithm includes:

a synthetic pricing routine that calculates a synthetic high price and a synthetic low price for the at least one complex order;

an inverting routine that inverts the net price of each of the inverse complex orders; and

a sorting routine that sorts the inverse complex orders, determines that none of the inverse complex orders has an inverted net price that is less than or equal to the synthetic high price and greater than or equal to the synthetic low price, and matches the at least one complex order against the plurality of regular orders, wherein the quantity of at least one leg of the complex order is a ratio of at least one other leg of the complex order, and wherein the quantities of the legs of the at least one complex order are matched against the plurality of regular orders in the same.

25. (Previously Presented) A system for matching complex orders to purchase or sell a plurality of financial instruments, the system comprising:

a memory adapted to store a plurality of orders or quotations including one or more complex orders, a plurality of inverse complex orders and a plurality of regular orders, wherein the complex and inverse complex orders each include a net price;

a processor coupled with the memory to identify matches between at least one complex order and the plurality of inverse complex orders and regular orders; and

a matching algorithm coupled with the processor, wherein the processor uses the matching algorithm to match each leg of the at least one complex order with the plurality of regular orders in a single transaction at a single net price, wherein the matching algorithm includes:

a synthetic pricing routine that calculates a synthetic high price and a synthetic low price for the at least one complex order;

an inverting routine that inverts a net price of each of the inverse complex orders;  
and

a sorting routine that sorts the inverse complex orders, determines that none of the inverse complex order has an inverted net price that is less than or equal to the synthetic high price and greater than or equal to the synthetic low price, and matches the at least one complex order with the plurality of regular orders.

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